

O/W Sunscreen Cream

| | INGREDIENT | INCI NAME | % |
|----|---------------------------------|--|-------------|
| 1 | Purified Water | WATER | Up to 100.0 |
| 2 | SUNSOFT A-181E-C | POLYGLYCERYL-5 STEARATE | 5.0 |
| 3 | 1-Hexadecanol | CETYL ALCOHOL | 2.0 |
| 4 | 1,3-Butanediol | BUTYLENE GLYCOL | 3.0 |
| 5 | Preservative | — | q.s. |
| 6 | Triethylhexanoin | TRIETHYLHEXANOIN | 7.5 |
| 7 | SUNOIL DDI | POLYGLYCERYL-10 DECAISOSTEARATE | 0.5 |
| 8 | Dimethylcyclopolsiloxane | CYCLOPENTASILOXANE | 5.0 |
| 9 | Liquid paraffin | MINERAL OIL | 7.5 |
| 10 | Hexadecyl 2-Ethylhexanoate | CETYL ETHYLHEXANOATE | 7.5 |
| 11 | Micro Particle Titanium Dioxide | TITANIUM DIOXIDE, ALUMINUM HYDROXIDE, STEARIC ACID | 5.0 |
| 12 | Micro Particle Zinc Oxide | ZINC OXIDE, HYDROGEN DIMETHICONE | 1.0 |
| 13 | TAISET 50-C | POLYGLYCERYL-6 OCTASTEARATE GLYCERYL BEHENATE | 0.5 |
| 14 | Xanthan | XANTHAN GUM | 0.2 |
| 15 | Bentonite (10% aq.) | BENTONITE | 5.0 |
| 16 | pH Buffer Agent | — | q.s. |

◆ Properties

- Appearance: Milky white soft cream
- pH: 6.5-7.5
- Viscosity (Model BL Viscometer): 9,000-12,000 mPa•s
- Stability: 3 months at 5°C, 40°C and ambient, 1 month at 50°C

No.OSC001C

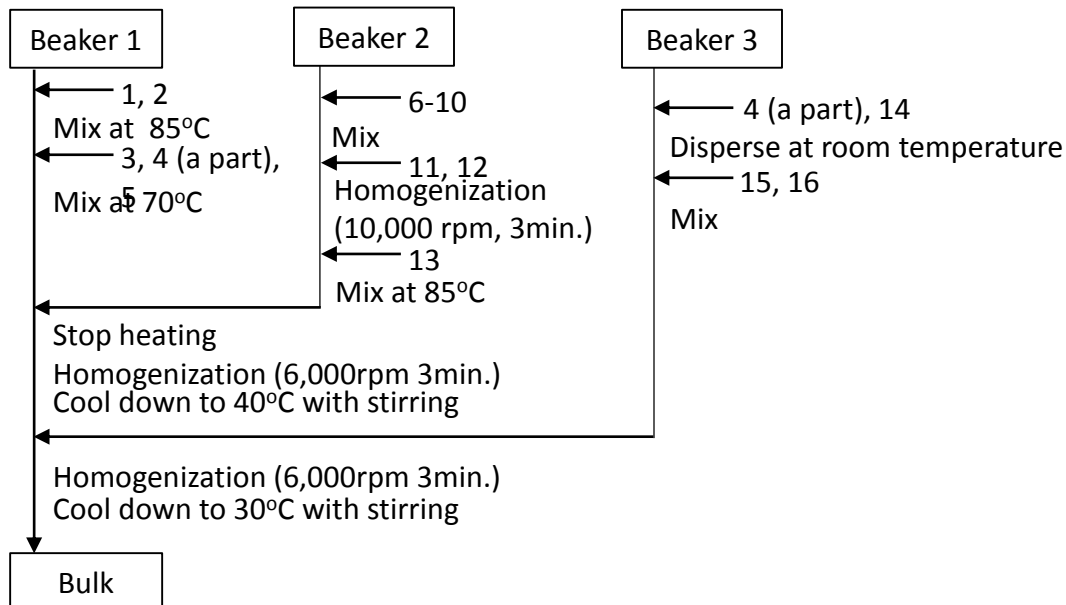
◆ SPF (in vitro)

SPF 14.5 PA++

Measured by SPF Analyzer, UV-2000S, Labsphere

A commercial product (SPF 34, PA+++) was measured on the same conditions and its SPF turned out to be SPF25.1.

◆ Procedure (300g/500mL beaker)



◆ Formulation characteristics

- The association structures formed by SUNSOFT A-181E-C and Cetyl alcohol enhance the stability of this emulsion.
- SUNOIL DDI enables micro fine particles to be quickly dispersed and doesn't leave white residue after applying this O/W sunscreen cream.

◆ Water resisting property of O/W Sunscreen Cream

- Water-resistant film on the surface of skin can be formed after applying this formulation and well-drying it out allowing great protection from wet conditions.



Apply each sample at 0.2g/cm² on a glass plate and dry well, then soaked in water with gentle stirring

Before soaked

Just after soaked

40 min. after soaked

